REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

As will be noted above, the entire application has been reviewed and amended so as to put it into more traditional US format.

The Examiner's attention is also drawn to related co-pending application Serial No. 10/532,609 also filed April 25, 2005 and now being examined by Examiner Jeong Park in Art Unit 2154. An attached Form PTO SB-08a identifies prior art cited therein but not in the present application (and a copy of any such newly cited non-US patent documents is also attached). An IDS fee for this stage of prosecution is also attached. Because of the electronic file wrapper now accessible to the Examiner at the USPTO, it is assumed that there is no necessity of encumbering the record in this case with copies of Official Actions and responses and the like that have been filed or will be filed in the other related case. However, if the Examiner prefers to have such copies filed in the present case, then please telephone the undersigned and such will be accomplished promptly.

Official consideration of this related co-pending application and all documents found therein is respectfully requested.

For the Examiner's possible interest, one difference between this case and the related co-pending Serial No. 10/532,609 is that in the present application (Serial No. 10/532,610), applicant uses multiple paths to improve the speed of connection by splitting the transmission into several components. In the other related case (Serial No. 10/532,609), applicant uses the split to improve reliability by duplicating the entire stream (even though a small improvement in speed is also achieved). Another point to note is that the arrangement described and claimed in

related co-pending application 10/532,609 requires the service provider's cooperation, in order to identify the requests as originating from a common source and splitting the data into parallel separate sub-streams.

The cited prior art (Apostolopoulos '083) takes a third approach by apparently rotating the use of several different individual paths (see Figures 9 and 12 in particular) rather than running them in parallel. In this way, Apostolopoulos achieves a speed which is the average of the paths rather than the aggregate (as in applicant's related application 10/532,609) or the optimum (as applicant achieves in the present application). Apostolopoulos also lacks the improvement in reliability that is achieved by the applicant's invention as described and claimed in the present (Serial No. 10/532,610) application. If Apostolopoulos were to duplicate streams in combination with his rotation of paths (rather than using simultaneous parallel paths), then that would, of course, also reduce the overall speed of the Apostolopoulos approach.

The rejection of claims 1-11 under 35 U.S.C. §102 as allegedly anticipated by Apostolopoulos '083 is respectfully traversed.

Apostolopoulos does not mention the feature specifically required by both independent claims 1 and 6, in which the same packets are sent on different streams, with the message assembled from whichever stream in which each individual packet first arrives. The message is therefore compiled from the first instance of each packet to arrive, whichever route that is carried over. This provides better mitigation than Apostolopoulos does against variable delays which do not impact all streams at the same time.

Apostolopoulos refers (at column 3, lines 38-43) to the system described therein as giving a behavior described as the "average path behavior" - this being better than the minimum

behavior that might be achieved if a single path was used, as the poor performance of an individual path will be diluted by the others. However, as it is an average, it is not as good as the best-performing path would have been had that been used on its own, were it possible to identify that in advance.

Moreover, Apostolopoulos is concerned with path diversity only within the network and not at the terminal. In applicant's invention separate servers will be accessed and the data providers will see several, apparently separate, requests for data. The applicant's invention is directed to a user terminal, and the invention can be performed entirely under the control of the user who, by accessing the same data stream several times, can assemble, at the terminal, a more reliable stream than any of the individual incoming ones.

The applicant's claimed invention improves on this. for example, since the packets used are always the first instance to be delivered, the system is always operating at the speed of the stream which is currently the fastest (not the average), by automatically switching between the streams as their relative performances vary.

As covered by claims 4 and 5, if the fastest stream is less reliable than a slower one, such that packets are lost in the faster stream but are subsequently delivered by a slower stream, the features of these claims readily allow for these slow packets either to be omitted (to maintain the maximum speed) or to be inserted in the correct order when the missing packets eventually arrive on the slower stream (to maintain accuracy). The maximum speed consistent with any required degree of accuracy can thus be maintained.

Furthermore, no measurement of performance is necessary to decide which stream to use as input. The arrival of the first instance of each packet is all that is required. If the stream

which delivered that packet fails to deliver the next one, the instance of that packet delivered by another stream will be used. No packet will be dropped unless it is missing from all of the separate streams.

Given the fundamental deficiencies of Apostolopoulos with respect to the features already discussed above, it is not believed necessary to discuss further deficiencies of Apostolopoulos with respect to other features of the rejected claims. Suffice it to note that, as a matter of law, it is impossible for a reference to anticipate a claim unless it teaches each and every feature of that claim.

Accordingly, this entire application is now believed to be in allowable condition and a formal Notice to that effect is respectfully solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: Larry S. Nixon

Larry S. Nixon
Reg. No. 25,640

LSN:vc
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100